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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,755	03/23/2001	Nagarajan Vaidehi	06618-606001/CIT3191	4783

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FISH & RICHARDSON P.C.
500 ARGUELLO STREET, SUITE 500
REDWOOD CITY, CA 94063

EXAMINER
LY, CHEYNE D

ART UNIT	PAPER NUMBER
1631	

DATE MAILED: 11/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/816,755	Applicant(s) VAIDEHI ET AL.	
	Examiner Cheyne D Ly	Art Unit 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-34* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *March 23, 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

The art unit designated for this application has changed. Applicants(s) are hereby informed that future correspondence should be directed to Art Unit 1631.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1 and 3, drawn to a computer implemented method for predicting the structure of a membrane-bound protein having a plurality of α-helical regions, classified in class 702, subclass 19.

II. Claim 2, drawn to a computational model of the structure of a transmembrane protein having a plurality of α-helical regions, classified in class 702, subclass 19.

III. Claims 4-19, drawn to a computational method for modeling the structure of a transmembrane protein having a plurality of α-helical regions, classified in class 702, subclass 19.

IV. Claims 20-26, drawn to a computational model of the structure of a transmembrane protein having a plurality of α-helical regions, classified in class 702, subclass 19.

V. Claim 27, drawn to a computer program product on a computer-readable medium for predicting the structure of a membrane-bound protein having a plurality of α-helical regions, classified in class 702, subclass 19.

VI. Claim 28, drawn to a computer program product on a computer-readable medium for predicting the structure of a G-protein coupled receptor protein having a plurality of α-helical regions, classified in class 702, subclass 19.

VII. Claim 29, drawn to a computational model of the structure of a G-protein coupled receptor comprising the structure coordinates of the backbone atoms of the amino acids as set out in Table 2 of less than or equal to about 2.0 angstroms, classified in class 702, subclass 19.

VIII. Claim 30, drawn to a computational model of the structure of a G-protein coupled receptor comprising the structure coordinates of the backbone atoms of the amino acids as set out in Table 3 of less than or equal to about 2.0 angstroms, classified in class 702, subclass 19.

IX. Claim 32, drawn to a computational model of the structure of a G-protein coupled receptor comprising the structure coordinates of the backbone atoms of the amino acids as set out in Table 4 of less than or equal to about 2.0 angstroms, classified in class 702, subclass 19.

X. Claim 32, drawn to a computational model of the structure of a G-protein coupled receptor comprising the structure coordinates of the backbone atoms of the amino acids as set out in Table 5 of less than or equal to about 2.0 angstroms, classified in class 702, subclass 19.

XI. Claim 33, drawn to a computational model of the structure of a G-protein coupled receptor comprising the structure coordinates of the backbone atoms of the amino acids as set out in Table 6 of less than or equal to about 2.0 angstroms, classified in class 702, subclass 19.

XII. Claim 34, drawn to a computational model of the structure of a G-protein coupled receptor comprising the structure coordinates of the backbone atoms of the amino

acids as set out in Table 7 of less than or equal to about 2.0 angstroms, classified in class 702, subclass 19.

2. The inventions are distinct, each from the other because of the following reasons:

3. The inventions of Groups I-XII are distinct inventions because they are directed to different entity types or methods regarding the critical limitations therein. For Group I, the critical feature is a computer implemented method for predicting the structure of a membrane-bound protein having a plurality of α-helical regions. For Group II, the critical feature is a computational model of the structure of a transmembrane protein having a plurality of α-helical regions. For Group III, the critical feature is a computational method for modeling the structure of a transmembrane protein having a plurality of α-helical regions. For Group IV, the critical feature is a computational model of the structure of a transmembrane protein having a plurality of α-helical regions. For Group V, the critical feature is computer program product on a computer-readable medium for predicting the structure of a membrane-bound protein having a plurality of α-helical regions. For Group VI, the critical feature is a computer program product on a computer-readable medium for predicting the structure of a G-protein coupled receptor protein having a plurality of α-helical regions. For Group VII, the critical feature is a computational model of the structure of a G-protein coupled receptor comprising the structure coordinates of the backbone atoms of the amino acids as set out in Table 2 of less than or equal to about 2.0 angstroms. For Group VIII, the critical feature is a computational model of the structure of a G-protein coupled receptor comprising the structure coordinates of the backbone atoms of the amino acids as set out in Table 3 of less than or equal to about 2.0 angstroms. For Group IX, the critical feature is a computational model of the structure of a G-protein coupled

receptor comprising the structure coordinates of the backbone atoms of the amino acids as set out in Table 4 of less than or equal to about 2.0 angstroms. For Group X, the critical feature is a computational model of the structure of a G-protein coupled receptor comprising the structure coordinates of the backbone atoms of the amino acids as set out in Table 5 of less than or equal to about 2.0 angstroms. For Group XI, the critical feature is a computational model of the structure of a G-protein coupled receptor comprising the structure coordinates of the backbone atoms of the amino acids as set out in Table 6 of less than or equal to about 2.0 angstroms. For Group XII, the critical feature is a computational model of the structure of a G-protein coupled receptor comprising the structure coordinates of the backbone atoms of the amino acids as set out in Table of less than or equal to about 2.0 angstroms. Further, it is acknowledged that the methods and models of Groups I-IV and VII-XII may be executed by the computer program of Groups V and VI, however, the completely distinct limitations of the inventions of the a method for predicting the structure of a membrane bound protein and the computational membrane bound protein models support the undue search burden if they were examined together.

4. Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 193), and 1157 OG 94 (December 28, 1993) (see 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703) 308-4242 or (703) 305-3014.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (703) 308-3880. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (703) 308-4028.

7. Any inquiry of a general nature or relating to the status of this application should be directed to Patent Analyst, Tina Plunkett, whose telephone number is (703) 305-3524 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

8. C. Dune Ly

9. 11/7/02

ARDIN H. MARSCHEL
PRIMARY EXAMINER